

PUBLIC SERVICE COMMISSION OF WISCONSIN

Quadrennial Planning Process II

5-FE-100

ORDER

This is the Order establishing a value of avoided carbon dioxide (CO₂) emissions for purposes of assessing the cost-effectiveness of the statewide Focus on Energy (Focus) energy efficiency and renewable resource program.

Background

Wisconsin Stat. § 196.374(3)(b)1. requires the Commission to review energy efficiency and renewable resource programs every four years to examine Focus and set or revise goals, priorities, and measurable targets for the programs. The Commission's decisions in the first Quadrennial Planning Process covered the 2011-2014 period, docket 5-GF-191. Those decisions included valuing avoided CO₂ emissions as a benefit in Focus' cost-effectiveness test at \$30 per ton, to strike a balance between the two primary sources for determining carbon values: market-based values and the long-term societal value of reduced emissions.

Quadrennial Planning Process II covers Focus programming during the 2015-2018 period. The Commission issued a Notice of Investigation and Request for Comments on July 3, 2013, which requested comments on whether the Quadrennial Planning Process II should include revisiting decisions made during the first Quadrennial Planning Process. ([PSC REF#: 187104.](#)) At its open meeting of December 13, 2013, the Commission reviewed the comments regarding the appropriate scope of the Quadrennial Planning Process II and determined that the

investigation would include reviewing the value of avoided CO₂ emissions. ([PSC REF#: 197255.](#))

In its Order dated September 5, 2014, the Commission directed Commission staff and the Evaluation Work Group (EWG) to evaluate and report back to the Commission on appropriate market-based carbon values not later than October 2015. ([PSC REF#: 215245.](#)) The Order noted that it was not necessary to set a carbon value until early 2016 because the evaluation of 2015 Focus programs would not begin until then, and that time and waiting to make a final decision could allow Commission staff and the EWG to further evaluate the subject. In the interim, the Commission also directed Focus to use a carbon value of \$15 per ton for planning purposes for the 2015 programs.

On November 11, 2015, the EWG submitted to Commission staff a range of options for market-based carbon values, based on its own modeling efforts designed to incorporate available data on carbon prices in existing regional markets and long-term projections of carbon price trends. The options presented by the EWG ranged between \$11.50 per ton and \$28 per ton. The Commission discussed the recommendations at its open meeting of December 10, 2015, and approved a value of \$15 per ton.

Finding of Fact

1. For purposes of evaluating Focus programs, valuing the benefits of avoided carbon emissions at \$15 per ton is reasonable and in the public interest.

Conclusion of Law

1. The Commission has jurisdiction under Wis. Stat. §§ 196.02, 196.374, and 196.395 and Wis. Admin. Code ch. PSC 137 to set and revise the goals, priorities, and measurable targets for Focus.

Discussion

The EWG's review of available sources on market-based carbon values concluded that no single existing source met its dual criteria of being informed by present-day market values and recognizing future market conditions for consistency with Focus' life cycle savings framework. Existing market-based values in California and the northeast region do not offer guidance on values over the full Focus life cycle. While reasonable long-term price projections are available in a report published by Synapse Energy Economics (Synapse), the timeframe for those projections do not begin until the 2020s, leaving the interim years without clear values.

In lieu of using a single source, the EWG derived multiple alternative market-based values for Commission consideration using the following process:

1. Establishing California's existing market-based value as the starting-point carbon value in 2015.
2. Generating near-term growth rate scenarios to identify the range of potential trends in carbon values between 2015 and 2022. This included setting minimum and maximum scenarios for the growth of carbon values over time, as well as moderate-growth scenarios designed to reach the range of future values projected by Synapse from the 2020s forward.

3. Projecting carbon values from 2022 through the remaining life cycle of Focus measures in 2040 for each of the scenarios created in step 2, based on the long-term value trajectories projected by Synapse and other sources.

4. Identifying single carbon values for each scenario, as the present value of projected prices over time.

This analysis identified 6 scenarios for market-based carbon values: a minimum scenario of \$11.50 per ton, a maximum value of \$28 per ton, and moderate values of \$13 per ton, \$16.50 per ton, \$19 per ton, and \$20 per ton.

As noted by the EWG analysis, there is not a single accepted figure for the value of avoided CO₂ emissions as the value is dependent upon a range of future factors. However, the Commission believes the EWG analysis provides a reasonable basis for evaluating the range of values. Based on this analysis, the Commission finds that it is reasonable to continue to use a carbon value of \$15 per ton. This value is consistent with the proxy value the Commission had already directed Focus to use for program planning and falls within the range of values identified by the EWG analysis.

Order

1. For purposes of evaluating the Focus program during the 2015-2018 quadrennium, the value of avoided carbon emissions shall be \$15 per ton.

2. The use of this value as approved in this Order is limited to the context of Focus program evaluation.

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3. This Order takes effect one day after the date of service.
4. Jurisdiction is retained.

Dated at Madison, Wisconsin, this 23rd day of December, 2015.

By the Commission:

A handwritten signature in black ink, reading "Sandra J. Paske". The signature is written in a cursive, flowing style with a long horizontal stroke at the end.

Sandra J. Paske
Secretary to the Commission

SJP:JF:jlt:DL:01280312

See attached Notice of Rights

PUBLIC SERVICE COMMISSION OF WISCONSIN
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**NOTICE OF RIGHTS FOR REHEARING OR JUDICIAL REVIEW, THE
TIMES ALLOWED FOR EACH, AND THE IDENTIFICATION OF THE
PARTY TO BE NAMED AS RESPONDENT**

The following notice is served on you as part of the Commission's written decision. This general notice is for the purpose of ensuring compliance with Wis. Stat. § 227.48(2), and does not constitute a conclusion or admission that any particular party or person is necessarily aggrieved or that any particular decision or order is final or judicially reviewable.

PETITION FOR REHEARING

If this decision is an order following a contested case proceeding as defined in Wis. Stat. § 227.01(3), a person aggrieved by the decision has a right to petition the Commission for rehearing within 20 days of the date of service of this decision, as provided in Wis. Stat. § 227.49. The date of service is shown on the first page. If there is no date on the first page, the date of service is shown immediately above the signature line. The petition for rehearing must be filed with the Public Service Commission of Wisconsin and served on the parties. An appeal of this decision may also be taken directly to circuit court through the filing of a petition for judicial review. It is not necessary to first petition for rehearing.

PETITION FOR JUDICIAL REVIEW

A person aggrieved by this decision has a right to petition for judicial review as provided in Wis. Stat. § 227.53. In a contested case, the petition must be filed in circuit court and served upon the Public Service Commission of Wisconsin within 30 days of the date of service of this decision if there has been no petition for rehearing. If a timely petition for rehearing has been filed, the petition for judicial review must be filed within 30 days of the date of service of the order finally disposing of the petition for rehearing, or within 30 days after the final disposition of the petition for rehearing by operation of law pursuant to Wis. Stat. § 227.49(5), whichever is sooner. If an *untimely* petition for rehearing is filed, the 30-day period to petition for judicial review commences the date the Commission serves its original decision.¹ The Public Service Commission of Wisconsin must be named as respondent in the petition for judicial review.

If this decision is an order denying rehearing, a person aggrieved who wishes to appeal must seek judicial review rather than rehearing. A second petition for rehearing is not permitted.

Revised: March 27, 2013

¹ See *Currier v. Wisconsin Dep't of Revenue*, 2006 WI App 12, 288 Wis. 2d 693, 709 N.W.2d 520.